



U.S. Department of Housing and Urban Development Spokane Field Office -- Region X

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Energy Conservation

Washington's hydroelectric power industry is the largest in the Nation and generates more power each year than any other state's entire renewable energies program.

₩ Washington is also home to the Grand Coulee Dam, the largest concrete structure in the U.S.

In any single year, HUD assists more than five million renters and homeowners—approximately 5 percent of all housing in the nation—through its various programs. The Department spends some \$4 billion each year on energy – more than 10 percent of its budget - primarily through utility allowances to renters, housing assistance payments to private building owners, and operating grants to public housing authorities.

On July 11, 2005, HUD joined with the Department of Energy and the Environmental Protection Agency to announce a major new interagency partnership aimed at reducing home energy costs by 10 percent over the next decade, which can add up to hundreds of dollars per year in savings for the average American family. The partnership launched www.energysavers.gov, an online portal that will provide owners, renters, and builders with the latest home energy savings information.

In keeping with HUD's initiative to help families save needed dollars through energy conservation, this newsletter is devoted to ways to decrease energy bills.

Educational Materials for Residents in Multifamily Units.

For residents that pay all or some of their utility bills, these resources will help them reduce their costs. If the housing authority pays all of the utility bills, educating residents will benefit everyone by improving resident comfort, lowering the housing authority's bills, and helping the environment.

Summer Energy-Saving Tips:

Residents can keep cool and save money in the summer by following some simple advice from the Department of Energy. To find a flyer on "Lowering Your Energy Bills this Summer", go to (http://www.hud.gov/offices/pih/programs/ph/phecc/residents/sresidentflyer.pdf) Your resident managers can post this flyer on bulletin boards or by the pool.

Winter Energy-Saving Tips:

Arm your residents with energy-saving tips to minimize the impact of rising energy costs this winter. Print the flyer, post it in common areas and distribute it to your residents. The flyer is available in English at

http://www.hud.gov/offices/pih/programs/ph/phecc/residents/wresidentflyer.pdf and Spanish at

http://www.hud.gov/offices/pih/programs/ph/phecc/residents/wresidentflyersp.pdf

Web Resources for Residents:

ENERGY STAR[®] When replacing just about anything electrical, residents should look for products with the ENERGY STAR label. These products use less energy, and can save 10 - 30% on operating costs. Stores sometimes offer rebates on ENERGY STAR qualified products. Visit www.energystar.gov to learn more.

Water Saving Tips -- The American Water Works Association has information for reducing water use at www.awwa.org/Advocacy/learn/conserve/resources/ConservationInfo.cfm.

Greener Choices Consumers Union, publisher of Consumer Reports, has launched www.greenerchoices.org. The site covers a wide range of issues, including energy, climate change, waste, and toxic substances. The site also provides product information; energy calculators; rebate information; and links to information about local energy, recycling, and sewage treatment services.

Energy Saving Tips from the Department of Energy for Homeowners www.eere.energy.gov/consumer/

Landscaping

A well-designed landscape not only can add beauty to your home but it also can reduce your heating and cooling costs. On average, landscaping for energy efficiency provides enough energy savings to return an initial investment in less than 8 years. If you were already planning to landscape, these tips provide an ideal way to beautify your home while saving on your monthly energy bill.

- Plant trees to shade your home, reducing your cooling costs in the summer months. Typically, newly planted trees will begin shading windows in their first year and will reach your roof in years 5-10.
- Planting shrubs, bushes, and vines next to your house creates dead air spaces that insulate your home in both winter and summer. Plant so there will be at least 1 foot (30 centimeters) of space between full-grown plants and your home's wall.
- During winter, dense, low-lying trees and shrubbery on the north and northeast sides of your home can help protect your home against wind chill.

Appliances & Electronics

Your appliances and home electronics are responsible for about 20 percent of your energy bills. These appliances and electronics include everything from clothes washers and dryers, to computers, to water heaters.

- For older appliances, use a power-controlling device to reduce the energy consumption of the appliance's electric motor.
- Turn off your personal computer when you're away from your PC for 20 minutes or more, and both the CPU and the monitor if you will be away for two hours or more.
- Always look for the EnergyStar and EnergyGuide labels when shopping for home appliances. The Energy Star label is the government's seal of energy efficiency. The EnergyGuide label estimates an appliance's energy consumption.

Heating & Cooling

Heating and cooling account for about 56% of the energy use in a typical U.S. home, making it the largest energy expense for most homes. A wide variety of technologies are available for heating and cooling your home, and they achieve a wide range of efficiencies in converting their energy sources into useful heat or cool air for your home.

• Use fans during the summer to create a wind chill effect that will make your home more comfortable. If you use air conditioning, a ceiling fan will allow you to raise the thermostat setting about 4°F with no reduction in comfort.

- Turn off kitchen, bath, and other ventilating fans within 20 minutes after you are done cooking or bathing to retain heated air.
- ENERGYSTAR labeled products can cut your energy bills by up to 30 percent. Find retailers near you at http://www.energystar.gov/ when you're ready to replace your heating and cooling systems as well as appliances, lighting, windows, office equipment, and home electronics.
- Insulate your hot water heater and hot water pipes to prevent heat loss.
- Insulate heating ducts in unheated areas such as attics and crawlspaces and keep them in good repair to prevent heat loss of up to 60 percent at the registers.

Insulation & Air Sealing

You can reduce your home's heating and cooling costs by as much as 30 percent through proper insulation and air sealing techniques. These techniques will also make your home more comfortable.

- Conduct an energy audit of your home to find air leaks and to check for the proper level of insulation. Common sources of air leaks include cracks around windows and doors, gaps along baseboard, mail chutes, cracks in brick, siding, stucco or foundation, or where any external lines (phone, cable, electric, and gas) enter the home.
- To test for air leaks on your own, on a windy day, hold a lit candle next to windows, doors, electrical outlets, or light fixtures to test for leaks. Also, tape clear plastic sheeting to the inside of your window frames if drafts, water condensation, or frost are present.
- Plug air leaks with caulking, sealing, or weather stripping to save 10 percent or more on your energy bill.
- Adequate insulation in your attic, ceilings, exterior and basement walls, floors, and crawlspaces can save you up to 30 percent on home energy bills.

Lighting & Daylighting

The quantity and quality of light around us determine how well we see, work, and play. Light affects our health, safety, morale, comfort, and productivity. In your home, you can save energy while still maintaining good light quantity and quality.

- Install task lighting such as under-counter kitchen lights or bathroom mirror lights to reduce the need for ambient lighting of large spaces.
- Use dimmers, motion sensors, or occupancy sensors to automatically turn on or off lighting as needed and prevent energy waste.
- Install fluorescent light fixtures for all ceiling- and wall-mounted fixtures that will be on for more than 2 hours each day.
- Use ENERGY STAR labeled lighting fixtures.
- Consider light wall colors to minimize the need for artificial lighting.
- Use compact fluorescent light bulbs (CFLs) in place of comparable incandescent bulbs to save about 50 percent on your lighting costs. CFLs use only one-fourth the energy and last up to 10 times longer.
- Turn your lights off when you leave a room. Standard, incandescent light bulbs should be turned off whenever they are not needed. Fluorescent lights should be turned off whenever you'll be away for 15 minutes or more.

Water Heating

Water heating can account for 14%–25% of the energy consumed in your home. You can reduce your monthly water heating bills by selecting the appropriate water heater for your home or pool and by using some energy-efficient water heating strategies.

- Select a showerhead with a flow rate of less than 2.5 gpm (gallons per minute) for maximum water efficiency. Before 1992, some showerheads had flow rates of 5.5 gpm, so you might want to replace them if you're not sure of their flow rates.
- Insulate your hot water pipes, which will reduce heat loss and can raise water temperature 2°F–4°F hotter than uninsulated pipes. This allows for a lower water temperature setting.
- Lowering the thermostat on your water heater by 10°F can save you between 3%-5% in energy costs. Most households only require a water heater thermostat setting of 120°F, or even 115°F.
- Did you know that 85-90% of the energy from hot water is wasted when it goes down the drain? Install a drain-water heat recovery system to pre-heat new water using the heat from drained water.
- If heating a swimming pool, consider a swimming pool cover. Evaporation is by far the largest source of energy loss in swimming pools.

Unconventional Sources of Electricity from the Department of Energy: Small Solar Electric Systems

A small solar electric or photovoltaic (PV) system can be a reliable and pollution-free producer of electricity for your home or office. And they're becoming more affordable all the time. Small PV systems also provide a cost-effective power supply in locations where it is expensive or impossible to send electricity through conventional power lines. For more information go to:

http://www.eere.energy.gov/consumer/your_home/electricity/index.cfm/mytopic=10710

Small Wind Electric Systems

Small wind electric systems are one of the most cost-effective, home-based renewable energy systems. These systems are also nonpolluting. If a small wind electric system is right for you, it can do the following:

- Lower your electricity bills by 50–90%
- Help you avoid the high costs of having utility power lines extended to a remote location
- Help uninterruptible power supplies ride through extended utility outages.

Small wind electric systems can also be used for a variety of other applications, including water pumping on farms and ranches. For more information go to:

http://www.eere.energy.gov/consumer/your home/electricity/index.cfm/mytopic=10880

Microhydropower Systems

Microhydropower systems usually generate up to 100 kilowatts (kW) of electricity. Most of the hydropower systems used by homeowners and small business owners, including farmers and ranchers, would qualify as microhydropower systems. In fact, a 10-kilowatt microhydropower system generally can provide enough power for a large home, a small resort, or a hobby farm. http://www.eere.energy.gov/consumer/your_home/electricity/index.cfm/mytopic=11050

Small "Hybrid" Solar and Wind Electric Systems

According to many renewable energy experts, a small "hybrid" electric system that combines wind and solar (photovoltaic) technologies offers several advantages over either single system. In much of the United States, wind speeds are low in the summer when the sun shines brightest and longest. The wind is strong in the winter when less sunlight is available. Because the peak operating times for wind and solar systems occur at different times of the day and year, hybrid systems are more likely to produce power when you need it.

http://www.eere.energy.gov/consumer/your_home/electricity/index.cfm/mytopic=11130

Ideas for Designing and Remodeling a Home:

If you're remodeling a home, conduct an <u>energy audit</u> to help you determine what energy efficiency improvements should and can be made to your home. Learn how to optimize energy efficiency with the following home designs and construction techniques:

Advanced House (Wall) Framing Techniques

Reduce lumber use and waste—improving energy efficiency—in the construction of a traditional wood-framed house.

Earth-sheltered Homes

Incorporate earth into their structure and design for durability and energy efficiency.

Log Homes

Use wooden logs to provide structure and insulation.

Passive Solar Homes

Take advantage of climatic conditions, especially the sun, for heating in the winter and cooling in the summer.

Straw Bale Homes

Use straw bales to provide all or part of their structure and insulation.

Zero Energy Homes

Produce more energy than they use.

To learn more about these homes go to:

http://www.eere.energy.gov/consumer/your_home/designing_remodeling/index.cfm/mytopic=10080

Trainings, Workshops and Conferences

May 23rd – Kennewick, WA — Tri-Cities Home Consortium is presenting two free workshops. In the morning (9:30 –12:00), "Fair Housing.. It's not an Option, It's the Law" will be presented by HUD and the Washington State Human Rights Commission. In the afternoon, (1:30 – 4:00) "Saving Energy .. Good for the Community.. Good for your Pocketbook" will present speakers on energy conservation for homeowners and landlords, the new "Green Building" state requirements for Affordable Housing, as well as other information. Workshops will be held at 2721 W. 10th, in Kennewick. For more information contact Kim McCollim, 509-368-3203

June 22nd – Spokane – The New FHA – Program Update, Appraisal Reform, REO & HECM Training. Mukogowa Fort Wright Institute, Commons Building, 4000 W. Randolph Road. Topics covered: The new Streamlined (k), Lender Insuring (LI), How to Qualify FHA Borrowers, Good Neighbor Next Door Program and other topics. Registration Fee is \$45 for members and \$50 for Non-members. For more information contact Karen Carson 509-368-3213.

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All questions, comments and suggestions for future newsletters can be directed to Kim McCollim, 509-368-3203 or email at kim_mccollim@hud.gov. Please notify us if your email address changes or you wish to be deleted from the distribution list.